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(58) Field of Search

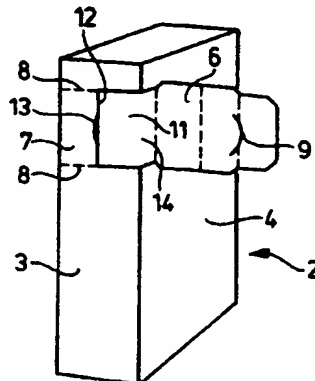
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(54) Abstract Title

Container

(57) A container (2) for containing tablets comprises at least two compartments, a divider (12) separating the compartments from each other, a dispensing aperture (14) in a wall (3 or 4) of the container (2) allowing access to all the compartments and a closure allowing in its open position access to the aperture (14). The closure comprises a first door (6) and a second door (7), the first door (6) allowing access only to a first compartment (11) and the second door (7) allowing access to at least a second compartment.

Fig. 3



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Fig. 1a

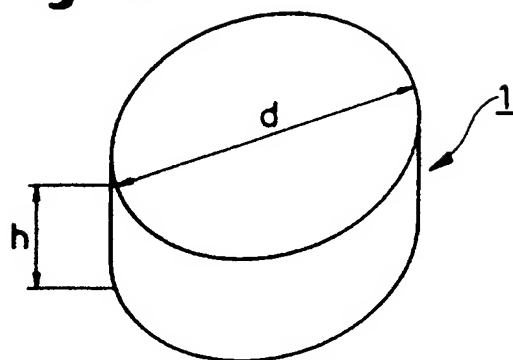


Fig. 1b

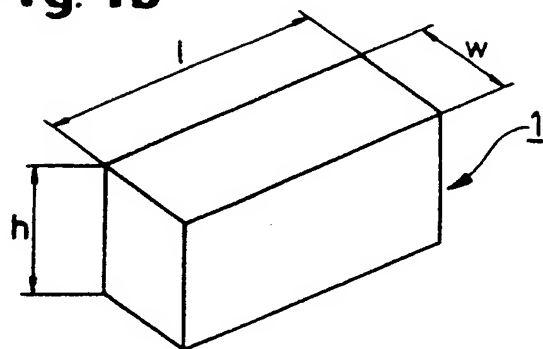


Fig. 2

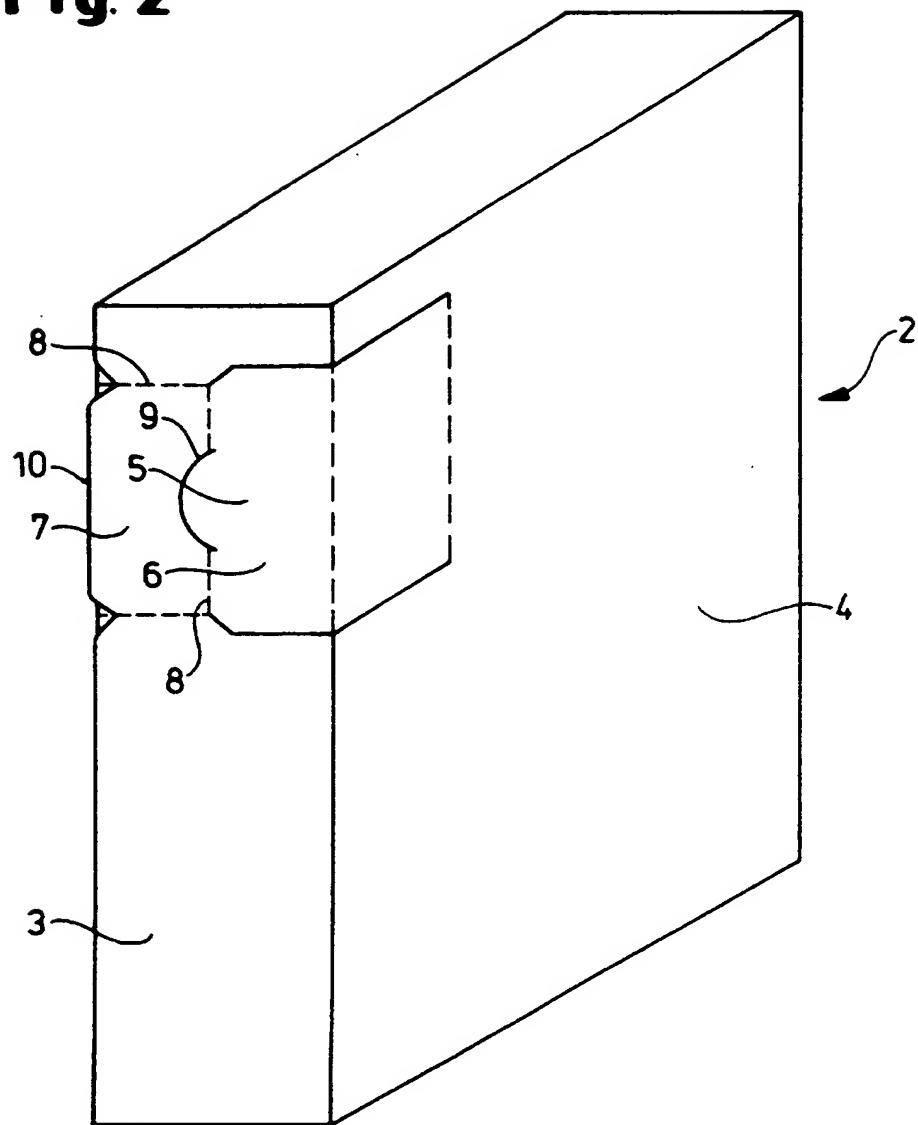


Fig. 3

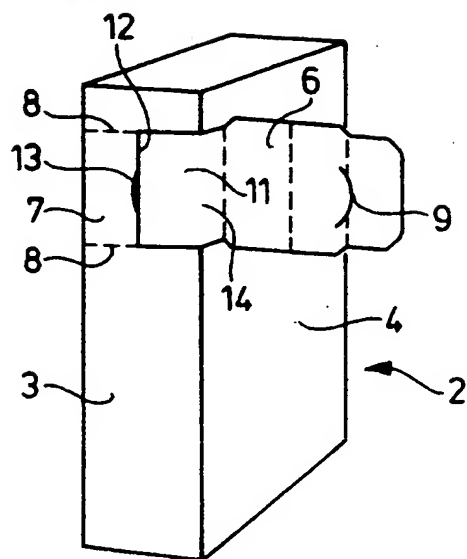


Fig. 4

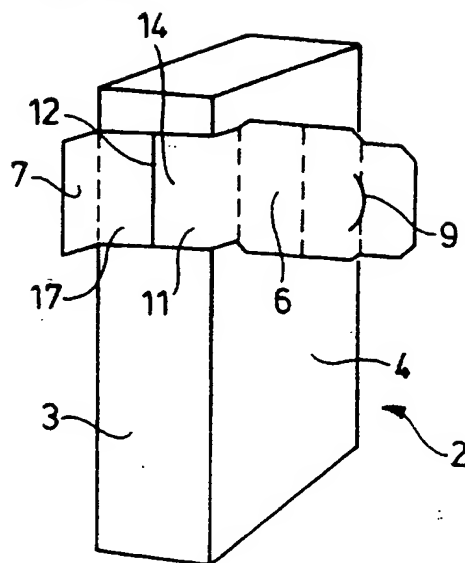


Fig. 5

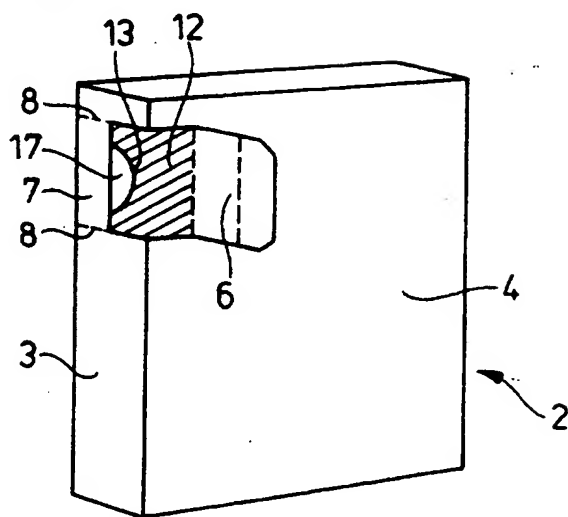


Fig. 6a

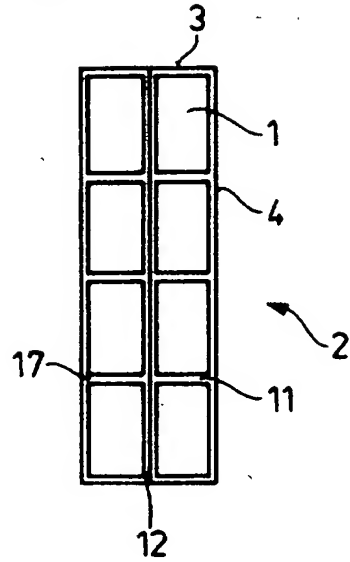


Fig. 7

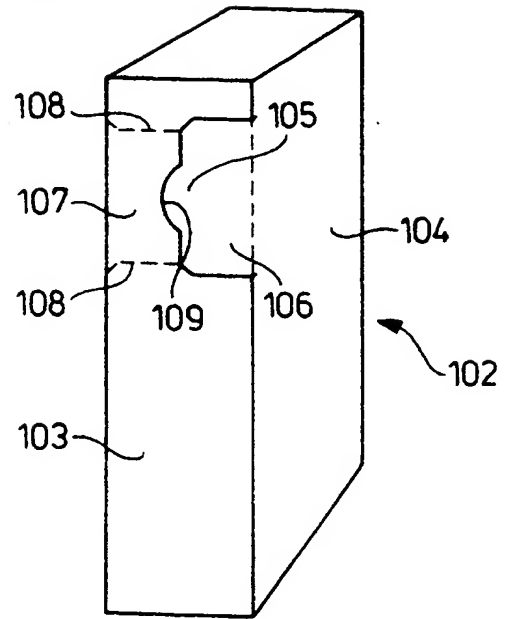


Fig. 6b

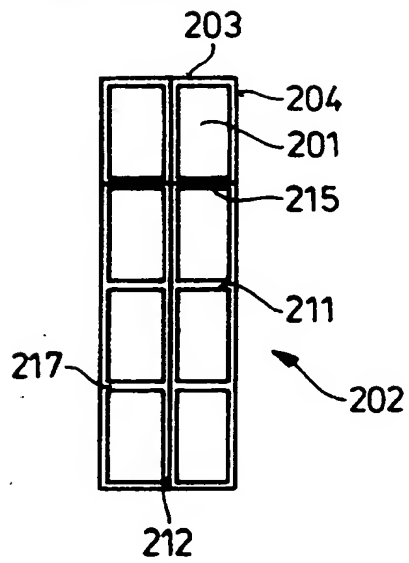


Fig. 8

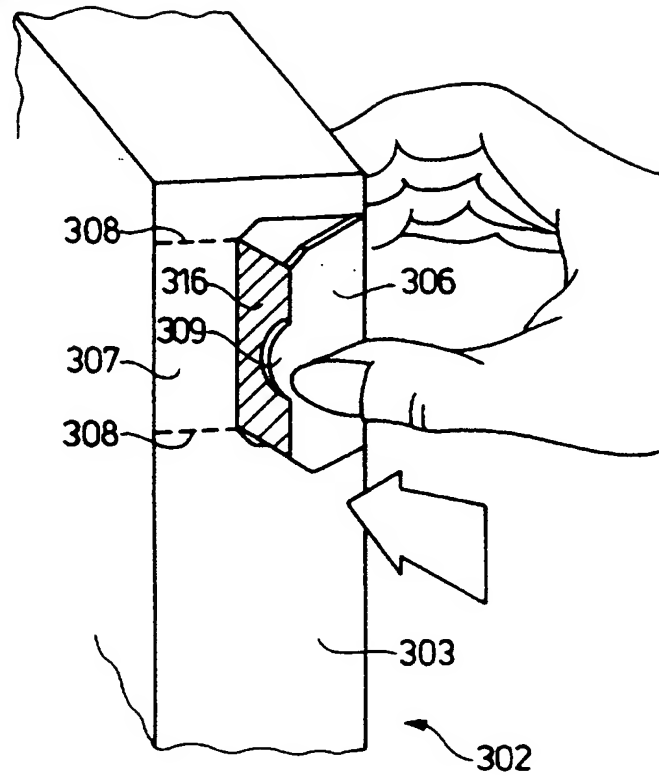
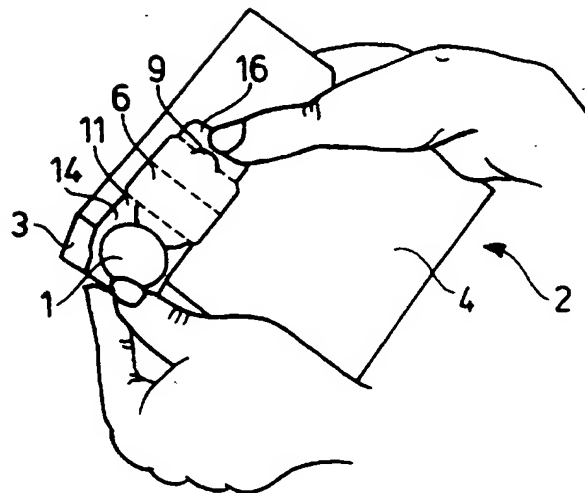


Fig. 9



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A Tablet Container

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Field of the Invention

The present invention relates to a container for tablets and a blank for making a container for tablets.

20

Background of the Invention

Detergent compositions formed in non particulate solids such as bars or tablets or briquettes are known in the art. In the following, the term "tablet" will refer to any form of non particulate solids. The tablet provides a number of advantages to both the consumer and the manufacturer. Indeed, the tablet prevents spillage of the detergent composition. Furthermore, the tablet eliminates the need for the user to estimate the dosage of detergent composition required and ensures that the correct dosage of detergent composition per wash cycle is used by the user.

The detergent tablets available on the market are generally sold packed in containers in a loose way or individually wrapped in bags. Other possible containers enable to dispense tablets one by one from said package. For example, EP-A-573 859 describes a package for pharmaceutical tablets in

which tablets fall singularly into a child resistant sliding drawer. The drawer has to be pulled out from the package to reach the tablet.

5 A problem relating to loose packing of tablets is the possibility of friction between the tablets. This can lead to fracturing of the tablets. This can then result in dust in the tablet-container, and furthermore to broken tablets which can be considered to be unusable because of improper dosing. Individually wrapping up of the tablets can reduce this problem, but leads to the use of extra package material and higher costs.

10

It has now been found that to get a tablet out of the packages as described in the document above is quite a complicated manoeuvre. Furthermore, the packaging of this document has a complicated construction, since a drawer has to be incorporated into a container. It has
15 been further found that especially users of detergent tablets consider these packages as being too complicated to be operated. Indeed, these users rather prefer a package which allows a facilitated one-by-one dispensing of detergent tablets out of said package.

20 It is therefore an object of the present invention to provide a package for detergent tablets which dispenses the detergent tablets one by one without complicated operations, whereby the tablets are easily accessible and whereby any jams of the detergent tablets blocking the dispensing of further tablets can be avoided.

25

It is furthermore an object of the invention to provide a container, whereby the friction between the tablets is reduced in comparison to tablets in conventional loose-packed containers.

30 Yet another object of the invention is to provide a container which is easy to make, with a minimum of package material.

Summary of the Invention

35 The present invention provides a container for containing tablets and a blank for making such a container. The container for containing tablets

comprises in its interior at least two compartments, a divider separating the compartments from each other, a dispensing aperture on a wall of the container allowing access to each, or all, of the compartments, a closure allowing in its open position the access to the aperture, the closure
5 comprising at least a first door and a second door, the first door in its open position only allowing the access to a first compartment, the second door being separately openable from the first door and allowing the access to at least the second compartment, and wherein the second door is at least partially separable from the aperture or container along one or more lines of
10 weakness to achieve its open position.

Brief Description of the Figures

Figures 1a and 1b are perspective front views of a detergent tablet which
15 may be used in any of the embodiments of the container according to the present invention.

Figure 2 is a perspective front view of a first embodiment of the container, comprising a closure, according to the present invention.
20

Figure 3 is a perspective front view of the container of the first embodiment, with one door open.

Figure 4 is a perspective front view of the container, of the first
25 embodiment with two doors open.

Figure 5 is a perspective side view of the first embodiment of the container.

30 Figure 6a is a cross sectional top view of the first embodiment of the invention. Figure 6b is a cross sectional top view of a second embodiment of the container.

Figure 7 is a perspective front view of a third embodiment of the container
35 of the present invention.

Figure 8 is a perspective front view of a fourth embodiment of the container of the invention, when in use.

Figure 9 is a perspective front view of the first embodiment, when in use.

Figure 10 is a blank for making the container of the first embodiment as shown in Figure 2, 3, 4, 5 and 9.

Detailed description of the invention

While the specification concludes with claims which particularly point out and distinctly claim the invention, it is believed the present invention will be better understood from the following description of preferred embodiments taken in conjunction with the accompanying drawings, in which like reference numerals identify identical elements and wherein;

In the following any form of non particulate solids such as bars or tablets 1 or briquettes will be encompassed by the term "tablet" 1. Pharmaceuticals in tablet 1 form are, for example, tablets 1 according to the present invention. Preferably, the tablet 1 is made of a detergent composition, specifically a detergent composition for washing of laundry or dish. The tablet 1 may have any shape or dimension. Preferably, the solid, non particulate tablet 1 is symmetrical to ensure the uniform dissolution of the tablet 1 in the wash liquor or in other specific environments.

According to the present invention the detergent tablet 1 may comprise any ingredients known in the art. Such ingredients may include surfactants, suds suppressers, bleaches, chelants, builders, enzymes, fillers and perfumes.

According to the present invention the detergent composition of the tablet 1 is prepared in its granular or particulate form and then formed into tablets 1 of the desired shape and size by any one of the methods known in the art. Suitable methods include compression, extrusion and casting. The detergent composition may be homogeneously distributed throughout the tablet 1 or may comprise distinct layers of certain detergent ingredients. Preferably, the

shape of the detergent tablet 1 is cylindrical, as shown, for example, in Figure 1a. In this case the dimensions of the detergent tablet 1 are defined by the diameter (d) and by the height (h). Usually, detergent tablets 1 have a cylindrical shape with the diameter being greater than the height of said tablet 1. Another possible shape of the tablet 1 is rectangular, as shown for example in Figure 1b. In this case the dimensions of this detergent tablet 1 are defined by the length (L), by the width (w) and by the height (h). Usually, in a rectangular tablet 1 the length is the greatest dimension and the width is equal or greater than the height.

10

A first embodiment of the invention is shown in Figures 2, 3, 4, 5 and 9.

Figure 2 shows a preferred container 2 in accord with the invention. The container 2 shows a closure 5, comprising in this preferred embodiment two doors 6 and 7, located on the front and side walls 3 and 4 of the container 2.

15

Figure 3 shows the container of Figure 2 with one door 6 open and Figure 4 shows the container 2 of Figure 2 and 3 with two doors 6 and 7 open.

20 In Figure 2 a closure 5 can be seen. In Figure 3 a divider 12, a first compartment 11 and an aperture 14 can be seen. In Figure 4 a second compartment 17 can be seen.

It can be preferred that the container 2 has a rectangular shape and has two dimensions of the same size (e.g. length and width). In the present invention, the internal dimension of the container 2 is preferably such that the tablets 1 are orderly spaced one to each other. This prevents that the tablets 1 jam in the interior of the container 2 and in front of the dispensing aperture 14, blocking the exit through said dispensing aperture 14 for other tablets 1. This can be achieved by limiting the internal width of each compartment 11 and 17 of the container 2 to a width which is smaller than the largest dimension of said tablets 1. This limitation is achieved by placement of a divider 12 in the internal of the container 2, in such a manner that compartments 11 and 17 of the right size are formed, as will be discussed below.

35

For example, when the tablet 1 has a cylindrical-type of shape as described above, such a detergent tablet 1 may only enter the container 2, if the tablet 1 is placed onto the bottom wall standing on the surface having the smallest dimension, i.e. its height (Fig. 1a, h). This means that the tablet 1
5 can never lay on the surface defining the diameter (d) of said tablet 1. Preferably, both the largest surfaces of each tablet 1 will be in close intimate contact with either two dividers or a divider 12 and a wall of the container 2, which is parallel to the divider 12. In a particular embodiment of the present invention the tablets 1 are orderly held in one row within its internal width of
10 the compartment 11 and/or 17. Other single rows may be placed on top of the lowest row starting from the row standing on said bottom wall until said container 2 is filled up to said top wall, thus forming a stack of rows. Consequently, the tablets 1 are ordered in a row or stack of rows. As hereinafter referred to, a "row of tablets" 1 is meant to be a row of tablets 1
15 standing upon the (bottom) wall or upon another row of tablets 1 whereby each tablet 1 stands on the part of the tablet 1 having the smallest dimension, i.e. on the height (h) for the tablets defined before. Therefore, the internal width is a distance perpendicular to said row.

20 This way of positioning the tablets can reduce the friction forces acting onto the tablets 1. Reducing the friction forces permits an easy dispensing of tablets 1 from the container 2 avoiding that tablets 1 block each other from exiting the container 2. This can be particularly important when the tablets 1 are big and/or heavy where the friction forces between said tablets 1 are
25 substantially high. Also, a reduction of the friction between the tablets 1 can reduce the chance of fracturing the tablets 1.

The friction forces between the tablets 1 are reduced in the container 2 according to this embodiment of the present invention. Indeed, only the
30 smallest surface of a tablet 1 interacts with other tablets 1 and/or with the side wall 3. Furthermore, when the tablet 1 is cylindrically shaped as described before, the tablet 1 is able to roll towards said dispensing aperture 14 which further reduces the friction. Therefore, blocking of the tablets 1 in the container 2 to exit through the dispensing aperture 14 by another tablet
35 can be reduced.

As shown in Figures 4 and 5 the container 2 comprises one divider 12 to divide two rows of tablets 1 (or in other words two stacks of rows of tablets) inside the container 2. The width (w) between a wall of the container 2 and the divider 12 (or between each divider 12, if more than one divider 12 is present, which can be another preferred embodiment in accord with the invention) is smaller than the largest dimension, i.e. the diameter or the length, of the tablet 1. Consequently, the divider 12 divides the parallel rows of tablets 1 from each other. In this manner, the friction between parallel rows is reduced to achieve an easy and readily dispensing of the tablets 1 and reduces the chance of fracturing of the tablets 1.

Thus, the divider 12 is located in the container 2 such that compartments 11 and 17 which have a substantially equal internal width and which are substantially equal in content are formed by the division made in the container 2 by the divider 12.

Furthermore, the surface area of the divider 12 can be about equal of size as the surface area of a wall 4, parallel to the divider 12. In this manner the tablets 1 in the compartments 11 and 17 will be about fully separated from each other by the divider 12, so that the tablets 1 can not move from one compartment 11 or 17 to another compartment 11 or 17. However, it can be preferred that the divider comprises openings on its surface, thereby having a smaller surface than the parallel wall.

Preferably, the divider defines a gap 13, which is in the near proximity of this door 7, as shown on Figures 3 and 5. This improves the dispensing of a tablet 1 from the first compartment 11, but particularly from the second compartment 17, by enabling a user of the container 2 to grab the tablet 1.

The divider 12 can be connected to the container 2 by any means, for example glued onto the container 2 or the divider 12 can form an integral part of the container 2, or the divider 12 can be loosely introduced in the internal of the container 2. Preferably, the divider 12 is connected to two, three or four walls of the container 2, to improve the stability of the divider 12 and container 2.

The plane of the divider 12 is preferably perpendicular to the major plane of the aperture 14, as in Figure 2, 3, 4, 5 and 9.

As shown in Figure 4 and 5, each compartment 11 or 17 of the container 2
5 communicates with the dispensing aperture 14 such that all tablets 1 of any row or within any compartment 11 or 17 are able to reach the aperture 14. Thus, the dispensing aperture 14 is dimensioned in such a manner to enable the access to all compartments 11 or 17. However, as explained herein, the aperture 14 can be partially closed and opened (depending on the
10 characteristics of the individual doors 6 or 7 of the closure 5) as to provide that a tablet 1 can only be dispensed from one compartment 11 or 17 at a time. Furthermore, a first door 6 will only allow access to the first compartment 11 of the container 2 and preferably each compartment 11 or 17 is only accessible via one door of the closure of the container 2.

15

The dispensing aperture 14 is preferably made of a rectangular cut through the thickness of two walls 3 and 4 of the container 2 as shown in Figure 2, 3, 4, 5 and 9. Even more preferably, the aperture is located on three adjacent walls. For a cylindrical tablet 1 as described above, said
20 dispensing aperture 14 is defined by a cut, preferably a series of cuts having the length equal or greater than the diameter (d) and the width equal or greater than the height (h) of as many cylindrical tablets 1 as compartments 11 or 17 present in the container 2 which is in the Figures 2, 3, 4, 5 and 9 two compartments 11 and 17. In these Figures, the width of the cut of the
25 part of the aperture 14 on the wall 3 of the container 2 is just greater than the height of two tablets 1 and is extended on another, adjacent wall 4. Preferably, the extended cut on the adjacent wall has a width equal to or more preferably smaller than, most preferably half the size of the diameter of a tablet 1, as shown in Figures 2, 3 and 4. An improved dispensing of the
30 tablets 1 is hereby achieved.

The closure 5 can be opened to dispense tablets by means of the lines of weakness 8 on the container 2. The closure 5 allows to close the dispensing aperture 14 such that the tablets 1 located in the container 2 may be
35 prevented from falling out of the container 2 when the container 2 is not in use. Preferably the closure 5 or a door 6 thereof comprises a extension grip

10. The extension grip 10 can improve the opening of the closure 5 or door 6, by providing a grip for easy pulling of the closure 5 or door 6.

5 When the closure 5 is in its fully open position, the dispensing aperture 14 is (fully) open, leading to all compartments 11 and 17 comprised in the internal of the container 2 as shown in Figure 9.

10 The major plane of the closure 5, in its closed position is substantially perpendicular to the plane of the divider 12, which separated the container 2 in compartments 11 or 17 and preferably the axis whereon the closure 5 (or the doors 6 or 7 thereof), hinge, is parallel to the plane of the divider 12.

15 The closure 5 comprises two doors 6 and 7, a first door 6 in its open position (see Figure 3) allowing access only to the first compartment 11.

20 In Figures 3 and 4 the doors 6 and 7 can be opened separately, each leading to one compartment 11 or 17 only. The doors 6 and 7 hinge on an axis which is substantially parallel to the plane of the divider 12. The doors 6 and 7 can vary, for example, from size, location on the container 2, way of opening and closing, as discussed below.

In figures 3 and 4 the doors 6 and 7 are opened in opposite directions. In an alternative embodiment the doors 6 and 7 open in the same direction.

25 In general, in accord with the invention is that each of the other doors also only allow access to one compartment 17. In accord with the invention a second door 7 can be part of a first door 6, with the proviso that the first doors 6 can be opened or closed separately, giving access to one compartment 11 only.

30 The doors 6 and 7 are separable from the aperture 14 or the container 2 along lines of weakness 8, preferably by one or more perforated lines, or partially cut lines, or pre-cut lines or cuts, or mixtures thereof, to allow it to be opened. Preferably, a part of the first door 6, preferably the bendable extension flap 316, can be opened by means of perforated lines and another
35 part of the first door 6 can be opened by means of partially cut or pre-cut

lines and the second door by means of a perforated lines. It can be preferred that the first door 6 is separable from the aperture 14 or container 2 in a similar way as the second door 7, to allow it to be opened. Preferably, the closure 5 or doors 6 and 7 and the lines of weakness 8 are located on three
5 adjacent walls, as mentioned herein. Hereby, obstruction of the lines of weakness can be avoided.

The doors 6 and 7 can be closed to close a part of the aperture 14. However, it can be possible that the doors 6 and 7 are not closable after
10 opening, but that the closure 5 can close the aperture 14.

In Figures 3, 4 and 5 the second door 7 is positioned such that opening of this second door 7 is only possible once a first door 6 has been or is opened. The first door 6 covers the second door 7 allowing a more efficient
15 closure, since closing of one door 6 will close the other door 7. However, it can be preferred that a door 6 covers another door 7 only partially.

In general, it is preferred that the closure 5 and/ or the doors 6 and 7 thereof are reclosable and can be retained by any means, known in the art.
20 Preferably, a single retaining means can retain the closure 5 or all doors 6 and 7 thereof, after the closure 5 or doors 6 and 7 thereof have been closed.

A preferred retaining means is shown in Figure 4, which is an extension flap 9 on the closure or a door 6 thereof, which can be pushed behind
25 another door 7, into the interior of the container 2. Another retaining means can be a bendable extension flap 316 on the closure 305 or a door 306 or 307 thereof, which can be bent inwards into the dispensing aperture, as shown in Figure 8.

30 Figure 6a shows a cross view of a container 2 filled with 'Rows' of tablets 1 and a divider 12. In 6b a cross-divider 215 is present, substantially perpendicular to the divider 212.

One or more cross-dividers can be a preferred optional piece of the
35 container 202. It can provide improved dispensing of the tablets 1 by forming a channel, defined by the divider 212, cross-divider 215, and two walls 203

and 204, wherethrough tablets can move towards the dispensing aperture. The presence of a cross-divider 215 can thus avoid jamming of or blocking by the tablets 1. Furthermore, the cross-divider 215 can provide stability to the container 2.

5

The cross-divider 215 should be such that each tablet 201 in each compartment 211 or 217 can still reach the dispensing aperture 14. Thus the length of the axis of the cross-divider 215, which is parallel to the divider 212 will always be limited by (be less than) the height of the stack of rows of tablets 201 in the compartment 211 and 217 minus the diameter of one tablet 201. The position where the cross-divider 215 and the divider 212 cross can be located on any point along the divider 212 which is a multiple of the diameter of a tablet 201. In such a manner, the cross-divider 215 can provide more stability to the container 202 whilst still allowing an efficient packing of the container 202 and whilst still allowing the tablets 201 of each compartment 211 and 217 to reach the dispensing aperture 14. Preferably, the position where the cross-divider 215 and the divider 212 cross, is located on one tablet-diameter distance to the dispensing aperture 14.

20 Figure 7 shows a container 102 whereby the dispensing aperture is situated on one wall, a side-wall 103. The closure 105 and doors thereof 106 and 107 are also situated on this side-wall 103, which is the wall 103 of the smallest width, and preferably on the top-side of this wall 103 of the container 102. The closure 105 and doors 106 and 107 thereof can be
25 opened by means of lines of weakness 108. The closure 105 comprises a extension flap 109 as a retaining means to retain the closure 105 and doors 106 and 107 closed, after reclosing.

In general, the aperture 14 and closure 5 can be situated on any wall or
30 walls of the container 2 and on any position on the walls. I

It can also be preferred that the container 2 or 302 comprises a closure 5 or door 6 or 306, which comprises a bendable extension flap 16 or 316 as retaining means and an extension flap 9 or 309, as shown in Figures 2, 3, 4,
35 5 or 8, with the difference that the extension flap 9 or 309 in that case serves as a grip to facilitate or ease the opening of the container 2 or 302.

Blank for container for tablets

The present invention also provides a blank 401 for containers 2 for
 5 tablets 1. The blank 401 comprises a front panel 405, back panel 407, two
 side panels 403 and 406, at least one of these panels 405, 406, 407, 403
 comprising a dispensing aperture 14 and a closure 5, comprising at least two
 doors 6 and 7, these panels 405, 406, 407, 403 having one or more
 10 extension panels 412. The extension panels 412 can connect said front,
 back and side panels 405, 406, 407, 403. Optionally a bottom and top panel
 are present. The divider 12 can be an integral part of the blank 401 as a
 divider panel 409, or alternatively the divider 12 can be introduced as a
 separate piece into the interior of the container 2 formed from the blank 401.

15 In Figure 10, a preferred blank 401 for a preferred container 2 for tablets 1
 is shown, which is a blank 401 for the container 2 as shown in Figure 2, 3, 4,
 5, 8 and 9. This blank 401 comprises one divider 12 and two compartments
 11 and 17, incorporates seven main panels 403, 405, 406, 407, 408, 409,
 410 which are connected to each other along transverse folding lines 402.
 20 The seven main panels 403, 405, 406, 407, 408, 409, 410 include a first side
 403 panel, a front outer panel 405, a second side panel 406, a back panel
 407, a first inner side panel 408, an inner divider panel 409 and a second
 inner side panel 410. The transverse boundaries of each of these panels
 403, 405, 406, 407, 408 except the inner side panels 409 and 410 are
 25 defined by axial folding lines 411. The axial folding lines 411 comprise
 extension panels 412 which serve to connect each of these panel 403, 405,
 406, 407, 408 comprising the extension panels 412, forming thereby a bottom
 and top wall for the container 2. The first side panel 403 comprises a
 dispensing aperture 14, which is covered by a closure 415, comprising a
 30 doors 416, a grip 418 and an extension flap 419. The closure 415 and door
 416 thereof are connected to the blank 401 by lines of weakness 404. The
 first inner side panel 408 has an inner-side-panel aperture 413 of half the
 size of the aperture 14 in the first side panel 403 and a second door 417.
 The inner divider panel 409 comprises a gap 414. As described above, the
 35 presence of such a gap 414 can improve the dispensing of a tablet 1 from
 the second compartment 17, by facilitating a grip to the tablet 1.

To assemble the container 2, the blank 401 of Figure 10 is first folded 180° along the transversal folding line 402 between panels 407 and 408, preferably after glue is applied to panel 410. Then, glue is applied on a part of panel 403. Then, the blank 401 is folded 180° along the transversal folding line 402 between panels 405 and 406. The panels 403, 406, 408 and 410 will then be glued together. Then, the blank 401 (or partially formed container 2) is positioned on the extension panels 412 on the axial side of the blank 401 which is the closest to the closure 415, to enable the folding of the extension panels 412 on the opposite axial side of 90° along the axial folding lines 411, optionally glued together, preferably afterwards. Thus a bottom panel has been formed. Then, the blank 401 (or partially formed container 2) is positioned this bottom panel, i.e. on the extension panels 412 on the axial side of the blank 401 which is the most remote from the closure 415. The blank 401 or partially formed container 2 can then be filled with tablets 1. The extension panels 412 on the opposite axial side are then folded 90° along the axial folding lines 411, and optionally glued together, preferably afterwards.

The tablets 1 can optionally be introduced into the container 2, which preferably does not comprise a divider 12, on a tray, or on as many trays as compartments 11 and 17 of the container 2 to be filled. Such a tray preferably comprises a stack of rows of tablets 1. The tray can then serve as a divider 12, dividing two compartments 11 and 17 and the rows of tablets 1.

Optionally, a cross-divider 215 can be present in the container, as described above and shown in Figure 6b. The cross-divider 215 can be comprised in the blank 401 for forming the container 2, or the cross-divider 215 can be placed into the interior of the container 2 after the container 2 has been partially formed from the blank 401. To place the cross-divider 215 in the interior of the container 2, the cross divider 215 is preferably placed in a slot in the divider 12, the plane of the divider 12 and the plane of the cross-divider 215 being perpendicular to each other.

The container 2 and the blank 401 therefor can be made of any material traditionally used making containers 2, cartons or boxes known in the art.

Preferably, the container 2 and the blank 401 therefor are made of paper board or card board or laminates, with preferably a protecting layer of for example polyethylene.

5

Handling by the user

The container 2 of the present invention dispenses tablets 1 from its
 10 compartments 11 and 17 through an aperture 14 via a door 6 or 7 of the closure, whereafter the tablet 1 for example can be placed in a dish washing or laundry washing machine, for example directly from the container 2, or by hand.

15 An example of the use of a container 103 of a fourth embodiment of the invention is shown in Figure 8.

An example of the use of a container 2 of the first embodiment of the invention is shown in Figure 9.

20

The user can open a first door 6 or 306 of the closure 5 or 305 by pulling the door 6 or 306, preferably by pulling the extension grip 10, into one direction along the lines of weakness 8 or 308, preferably perforated and /or partially cut lines, preferably by gripping and pulling a grip 10 on the first
 25 door 6 or 306 of the closure 5 or 105, and subsequently bending the door 6 or 306 away from the aperture 14. By lifting or rotating the container 2 or 302 the tablets 1 in the interior of the container 2 will roll or glide towards the aperture 14. However, only a tablet 1 which is in front of an opened door 6 or 306 can be dispensed through the dispensing aperture 14, outside the
 30 container 2 or 302. In Figure 9 it is shown that the aperture 14 and the first door 6 are located on two walls 3 and 4 of the container 2. This allows an easier dispensing of a tablet 1 from the opened compartment 11, because the user can grip the tablet 1 more easily. The second door 7 can also be situated on two walls, to provide easier dispensing of the tablets 1.
 35 Furthermore, the divider 12 comprises a gap 13, which is in the near

proximity of this door 7, as shown in Figure 5, which can provide easier dispensing of the tablets 1.

Once the user has dispensed the required amount of tablets 1, he can
5 bend the opened door 6 or 306 back in the direction of the container 2 or
302 in its original position, as to re-close the aperture 14 or part thereof. In
Figures 8 it is shown that the door 306 comprises a retaining means, a
bendable extension flap 316, to retain or fasten the door 306, once it has
been re-closed. The bendable extension flap 316 can be bent in the
10 direction of the container 302 and pushed towards the interior of the
container 302 through the aperture. In Figure 9 the retaining means is an
extension flap 9 on the closure 5, which can be pushed behind the second
door 7, into the interior of the container. It can be preferred that the container
of Figure 9 comprises a bendable extension flap 316 of Figure 8 as retaining
15 means, whereby the extension flap 9 optionally can be present as grip to
open the door 6 after re-closing.

Once all tablets 1 are dispensed from one compartment 11, the second
door 7 or 307 can be opened, optionally by following the same procedure as
20 set out above for a first door 6 or 306.

In Figure 8 and 9 the second door 7 or 307 can be fasted after closing by
pushing it back in its closed position. It can be preferred that the second
door 7 can be retained after closing by the same retaining means which
25 retains the first door 6 or 306, after closing of door 6 or 306.

Optional executions

Optionally a cross divider 215 can be present, as mentioned before and
30 shown in Figure 6b.

Optionally, the container 2 is made of thermoplastic material. Such
thermoplastic materials have been extensively described in the art and
include vinyl chloride based resins, polymers and co-polymers derived from
35 olefins, acrylic polymers and co-polymers, polyethylene, polypropylene,
polystyrene, polyethylene terephthalate, polyethylene terephthalate glycol,

or mixtures thereof. Said container 2 can be made of single or multi-layer extrusion of such materials. It can also comprise recycled thermoplastic materials. A preferred thermoplastic material used herein is polyethylene. The container 2 can be made of low cost thermoplastic material such as
5 polypropylene and formed by injection moulding or by thermo forming.

Optionally, the top wall of the container 2 comprises a refilling opening. The refilling opening allows to refill the container 2 with new detergent tablets 2 once the container 2 is emptied. Therefore, the dimension of the refilling
10 opening corresponds at least to the dimension of a tablet 1.

Claims

1. A container (2) for containing tablets (1) comprising in its interior at least two compartments (11, 17), a divider (12) separating the compartments (11 and 17) from each other, a dispensing aperture (14) on a wall (3 or 4) of the container (2) allowing access to each, or all of the compartments (11, 17), a closure (5) allowing in its open position the access to the aperture (14), the closure (5) comprising at least a first door (6) and a second door (7), the first door (6) in its open position only allowing the access to a first compartment (11), the second door (7) being separately openable from the first door (6) and allowing the access to at least the second compartment (17), and wherein the second door (7) is at least partially separable from the dispensing aperture (14) or container (2) along one or more lines of weakness (8) to achieve its open position.
2. A container (2) according to Claim 1, consisting of two compartments (11, 17).
3. A container (2) according to Claim 1 or 2, whereby the lines of weakness (8) are partially cut or perforated lines or mixtures thereof.
4. A container (2) according to any of Claims 1 to 3, whereby the first door (6) covers the second door (7), when said doors (6, 7) are in their closed position.
5. A container (2) according to any of Claims 1 to 4, whereby the closure (5) is comprised on two walls (3, 4) of the container(2).
6. A container (2) according to any of Claims 1 to 5, whereby the doors (6 and 7) hinge on an edge of the container (2).
7. A container (2) according to any of Claims 1 to 6, whereby the divider (12) forms an integral part of or is connected to the container (2).

8. A container (2) according to any of Claims 1 to 7, whereby each of the doors (6 and 7) in its opened position only allows access to one compartment (11 or 17).
- 5 9. A container (2) according to any of Claims 1 to 8, whereby at least one door (6 or 7) comprises a retaining means for retaining the door (6 or 7) when the door (6 or 7) is in its closed position.
- 10 10. A container (2) according to Claim 9, whereby the first door (6) comprises an extension flap (9) as retaining means.
11. A container (2) according to any of Claims 1 to 10, whereby the container (2) is at least of paper board material.
- 15 12. A container (2) according to any of Claims 1 to 11, whereby the closure (5) is comprised on three walls (3, 4) of the container(2).
13. A blank 401 for forming a container (2) for tablets (1) according to Claim 2 comprising:
 - 20 (a) a front outer panel (405) having extension panels (412) being attached along axial folding lines (411) to each axial edge of the front outer panel (405);
 - 25 (b) a first side panel (403) being attached along its upper transverse edge to the lower transverse edge of the front outer panel (405), having extension panels (412) being attached along axial folding lines (411) to each axial edge of the first side panel (403), and having an aperture (420) and a closure (415) comprising two doors (416 and
 - 30 417) attached to at least the first side panel (403) which can be opened along lines of weakness (404);
 - 35 (c) a second side panel (406) being attached along its lower transverse edge to the upper transverse edge of the front outer panel (405), having extension panels (412) being attached along axial folding lines (411) to each axial edge of the second side panel (406);

- 5 (d) a back panel (407) having extension panels (412) being attached along axial folding lines (411) to each axial edge of the back outer panel (407), being attached along its lower transverse edge to the upper transverse edge of the second side panel (406);
- 10 (e) a first inner side panel (408) being attached along its lower transverse edge to the higher transverse edge of the back panel (407), the axial edge having half the size of an axial edge of a side panel (403 or 406) and having an inner-side-panel-aperture (413) of half the size of the aperture (420) of the first side panel (403);
- 15 (f) an inner divider panel (409) being attached along its lower transverse edge to the higher transverse edge of the first inner side panel (408), having extension panels (412) being attached along axial folding lines (411) to each axial edge of the inner divider panel (409);
- 20 (g) a second inner side panel (410) being attached along its lower transverse edge to the higher transverse edge of the inner divider panel (409), the axial edge having half the size of an axial edge of a side panel or less (403 or 406).
- 25 14. A blank(401) according to Claim 13, wherein said inner divider panel (409) comprises a slot in one axial edge.



Application No: GB 9705728.5
Claims searched: 1 to 14

Examiner: Mike Henderson
Date of search: 22 May 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.O): B8P (PB1 PG1 PE1X PK3)

Int CI (Ed.6): B65D 5/48 5/54 5/70

Other: ONLINE:WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage.	Relevant to claims
A	GB 522852 (HASSELBLADS FOTOGRAFISKA AB) (Fig 1 and corresponding description most relevant)	1 to 14

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